Indiana Crop & Weather Report

INDIANA AGRICULTURAL STATISTICS
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CROP REPORT FOR WEEK ENDING AUGUST 9

Warm, humid weather prevailed across the state last week, according to the Indiana Agricultural Statistics Service. Crops continue to progress with plenty of moisture available to fuel growth. Disease and insect pressure have remained light for both corn and soybeans.

CORN

Corn condition is rated 68 percent good to excellent, compared to 65 percent last week, and 34 percent last year. Ninety-two percent of the crop is **silked**, ahead of the 90 percent average. By region, 96 percent of the crop is silked in the north, 94 percent in the central, and 78 percent in the south. Thirty-seven percent of the corn is in the **dough** stage, ahead of 26 percent last year and the 31 percent average. By region, 39 percent is in the dough stage in the north, 39 percent in the central, and 30 percent in the south.

SOYBEANS

Soybean condition is rated 69 percent good to excellent, compared to 66 percent last week, and 41 percent last year. Eighty-eight percent of the soybeans are **blooming**, equal to last year and slightly ahead of average. By region, 95 percent are blooming in the north, 92 percent in the central, and 64 percent in the south. Fifty-three percent of the soybean crop is **setting pods**, ahead of the 47 percent average. By region, 61 percent of the crop is setting pods in the north, 56 percent in the central, and 32 percent in the south.

OTHER CROPS

Pasture condition is rated 15 percent excellent, 60 percent good, 21 percent fair, 3 percent poor and 1 percent very poor. **Second cutting** of **alfalfa** is 96 percent complete. **Third cutting** is 26 percent complete.

DAYS SUITABLE and SOIL MOISTURE

For the week ending Friday, 3.7 days were rated **suitable for fieldwork**. **Topsoil moisture** was rated 6 percent short, 60 percent adequate and 34 percent surplus. **Subsoil moisture** was rated 8 percent short, 68 percent adequate and 24 percent surplus.

CROP PROGRESS

Crop	This Week	Last Week	Last Year	5-Year Avg
	Percent			
Alfalfa 2nd Cutting	96	89	88	91
Corn Silked	92	84	90	90
Corn Dough	37	23	26	31
Soybeans Blooming	88	77	88	87
Soybeans Podding	53	36	52	47

CROP CONDITION

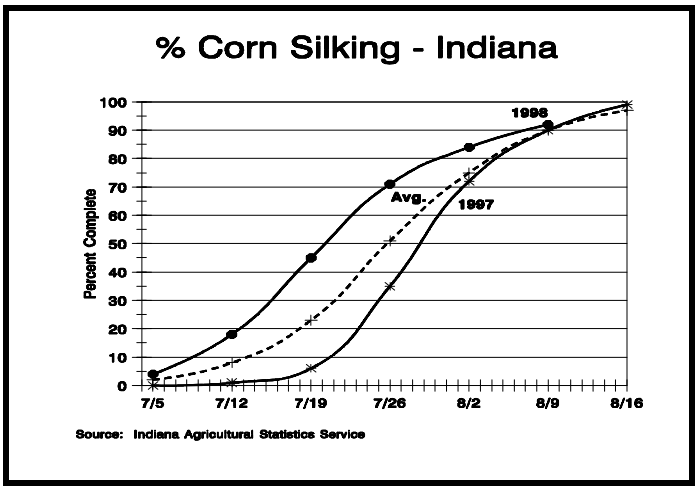
Crop	Very Poor	Poor	Fair	Good	Excel-lent
	Percent				
Corn	2	5	25	51	17
Soybeans	3	6	22	51	18
Pasture	1	3	21	60	15

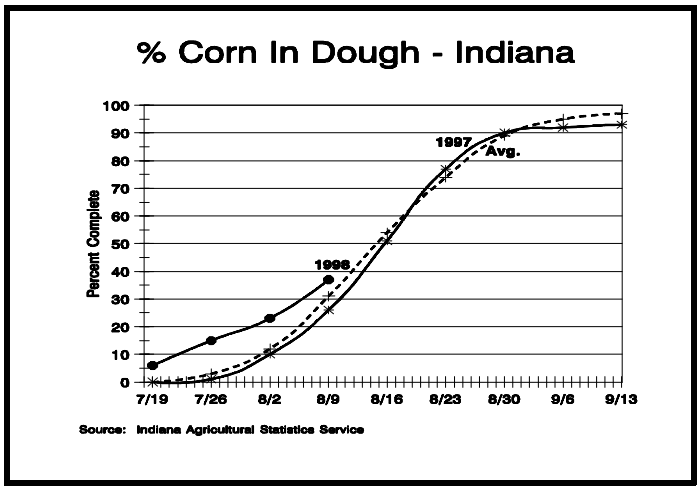
SOIL MOISTURE

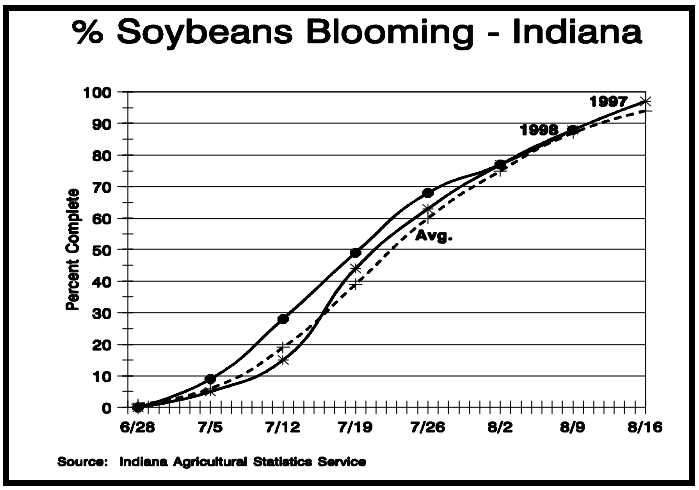
	This Week	Last Week	Last Year
	Percent		
Topsoil			
Very Short	0	3	41
Short	6	15	41
Adequate	60	72	17
Surplus	34	10	1
Subsoil			
Very Short	0	2	31
Short	8	13	41
Adequate	68	75	27
Surplus	24	10	1

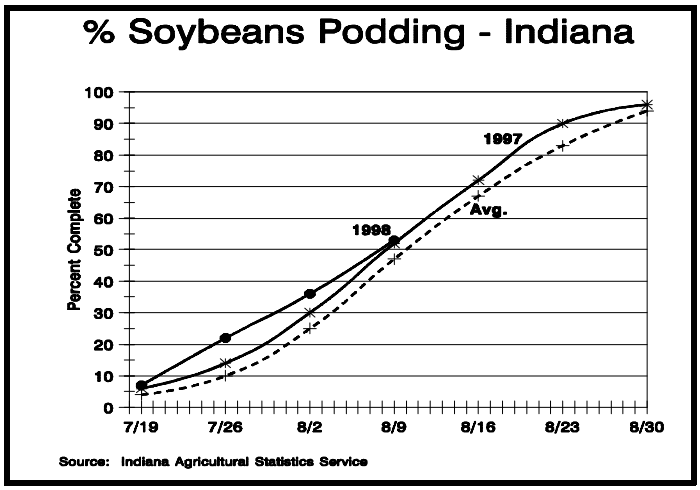
--Ralph W. Gann, State Statistician
--Lance Honig, Agricultural Statistician
E-Mail Address: nass-in@nass.usda.gov
http://info.aes.purdue.edu/agstat/nass.html

Crop Progress









Bacterial Ear Rot in Flooded Corn

Flooding of streams and rivers in late July do not always cause obvious damage to affected corn crops in adjacent fields, especially where the flood waters simply rise and fall quickly with little damage from moving water. Yet, the consequences of such flooding can be dramatic, especially if the flooding occurs near the time of pollination. Here is an example.

Intense rains in Carroll County during the third week of July resulted in extensive flooding of Deer Creek for a short period of time. Flood waters spread out through adjacent corn fields to heights greater than that of the developing ear shoots whose silks were just beginning to emerge from the husks. The water receded fairly quickly, leaving the corn plants covered with a thin layer of mud but with little other apparent damage.

A visit to one particular field one week later revealed that while pollen shed was occurring normally, silk elongation had stopped and the exposed silks were already dried up and brown. The plants themselves looked normal (albeit covered with a thin dry layer of mud) and the ear shoots themselves looked healthy from the outside.

Removing the husk leaves from the ear revealed that the upper half to two-thirds of the immature cob was discolored (gray), the sections of silk adjacent to the discolored cob were reddish-orange (according to Nielsen's eyes) or brown (Ruhl's eyes) and a distinctly objectionable odor wafted up from the rotting areas. Diagnosis of the ears back at Purdue's Plant and Pest Diagnostic Laboratory indicated that the cause of the problem was a bacterial rot.

The bacterial ear rot following flooded field conditions was most likely caused by one of several species of soft rot bacteria. These bacteria live as saprophytes on plant residue in the soil. During periods of high rainfall, flooding, overhead irrigation, or poor drainage, bacteria are splashed onto plants. The bacteria normally enter the plant through leaf stomates or wounds on leaves or stalks.

(Continued on Page 4.)

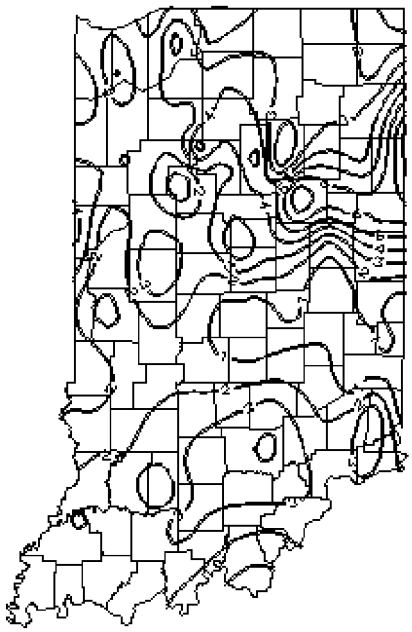
Weather Data

Average Daily Values for week ending Monday morning August 10, 1998

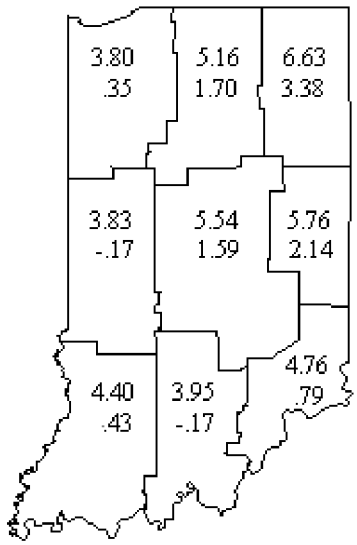
Area	Station	Air Temperature			Precipitation			Growing Degree Days		
		Max	Min	DN	Past Week	Since April 1	DN Since April 1	Past Week	Since April 1	DN Since April 1
NW	Wanatah	82	66	+3	1.89	18.45	+1.73	171	2124	+235
	Kentland	82	68	+3	2.44	22.67	+5.79	181	2313	+217
	Winamac	80	68	+3	2.61	20.35	+3.93	172	2254	+235
NC	South Bend	80	70	+3	3.34	16.64	+.58	179	2218	+265
	Waterford Mills	81	67	+2	3.81	18.05	+2.96	173	2238	+244
NE	Prairie Heights	81	68	+4	2.99	17.11	+1.49	177	2234	+475
	Columbia City	81	68	+3	2.74	18.86	+2.98	175	2174	+295
	Fort Wayne	81	67	+2	2.79	22.05	+7.13	174	2251	+196
	Bluffton	83	69	+3	3.75	24.33	+8.34	185	2313	+204
WC	West Lafayette	82	68	+3	.98	24.70	+8.23	180	2343	+299
	Perrysville	82	69	+1	3.59	27.87	+9.15	183	2424	+68
	Crawfordsville	83	68	+3	3.97	26.94	+10.63	181	2293	+232
	Terre Haute 8s	84	70	+2	3.21	25.67	+7.64	190	2612	+327
C	Tipton	81	67	+3	5.67	29.39	+12.67	174	2180	+171
	Indianapolis	83	71	+3	1.13	26.89	+9.99	192	2487	+213
	Indian Creek	84	69	+3	2.37	25.07	+7.74	190	2470	+319
EC	Farmland	83	69	+5	2.89	26.09	+9.86	186	2295	+358
	Liberty	86	68	+4	1.70	24.32	+6.26	188	2341	+191
SW	Vincennes	85	70	+3	2.15	31.26	+13.23	197	2563	+215
	Dubois	85	69	+2	3.22	26.05	+6.61	191	2517	+226
	Evansville	84	71	+1	.45	22.76	+5.40	198	2754	+188
SC	Bedford	85	71	+4	1.27	32.83	+14.29	197	2442	+241
	Louisville	87	73	+3	1.22	26.15	+8.13	206	2812	+287
SE	Butlerville	85	67	+2	2.20	31.63	+13.67	187	2443	+74

DN = departure from normal.
Growing Degree Days = daily mean - 50 (below 50 adjusted to 50, above 86 adjusted to 86.)

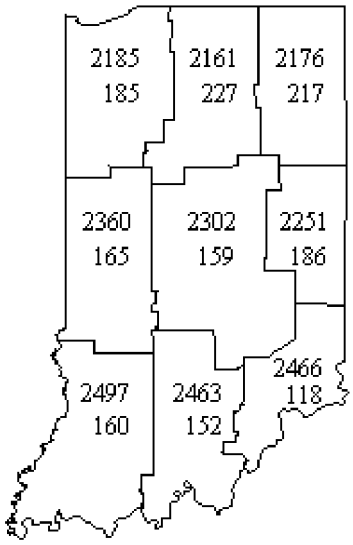
Rainfall of 1 Inch or More
for Past 7 Days
as of Monday morning



Rainfall for Past 4 Weeks
and Departure from Normal



Growing Degree Days
and Departure since April 1



The above information is provided by Ken Scheeringa, Indiana State Climatologist (765)494-8105
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Bacterial Ear Rot (continued)

In the case of this field, it appears that the bacteria were carried in the flood water that rose above the young corn ears and then proceeded to seep down through the silks and husks of the young ears while they were submerged. As flood waters receded, the water trapped inside these ears provided optimal conditions for bacterial growth. Affected ears appeared normal on the outside, yet the bacteria were working within the husk, decomposing the cob, kernels, silks and leaf tissue from the inside. A soft, slimy texture and disagreeable odor that resembles spoiled silage accompanies the work of these soft rot bacteria.

Bottom Line: Don't wait until harvest to discover that a problem like this has occurred. Check fields that were flooded like this recently to determine the true extent of the damage.

Don't forget, this and other timely information about corn can be viewed at the Chat 'n Chew Café on the World Wide Web at http://www.agry.purdue.edu/agronomy/ext/corn/chatchew.htm. For other information abut corn, take a look at the Corn Growers' Guidebook on the World Wide Web at http://www.agry.purdue.edu/agronomy/ext/corn/

--Bob Nielsen & Gail Ruhl, Agronomy Dept. & Botany/Plant Pathology Department, Purdue University

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